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WHAT IS CLAIMED IS:

1. A marine riser, comprising:

(a) a riser pipe having an outer riser pipe surface;

(b) an annular sheath surrounding the riser pipe and forming a conduit between the outer riser pipe surface and an inner surface of the annular sheath, the annular sheath having an outer surface;

(c) at least one pair of nozzles for discharging water carried by the conduit out of the annular sheath in a direction substantially tangential to the outer surface of the annular sheath; and

(d) when the marine riser is beset by a current, the discharge of water by the at least one pair of nozzles substantially preventing flow separation of the current on a down-current side of the marine riser and thereby substantially preventing hydrodynamic drag and VIV that the marine riser would experience in the absence of the discharge of water by the at least one pair of nozzles.

2. The marine riser of claim 1 wherein the annular sheath is an elongated cylinder having a vertical dimension extending lengthwise along the cylindrical annular sheath, and wherein the at least one pair of nozzles comprises a pair of slot-nozzles extending along the vertical dimension of the cylindrical annular sheath.

3. The marine riser of claim 2 wherein the pair of slot-nozzles are disposed substantially opposite one another on the cylindrical annular sheath; and the at least one pair of nozzles including a second pair of slot-nozzles disposed substantially opposite one another on the cylindrical annular sheath.

4. The marine riser of claim 1, further comprising a system for pumping water through the conduit to at least one of the pair of nozzles.

5. The marine riser of claim 1, further comprising a system for rotating the annular sheath and the at least one pair of nozzles relative to the riser pipe

6. The marine riser of claim 5 wherein the system for rotating the annular sheath includes a gear for rotating the annular sheath and the at least one pair of nozzles relative to the riser pipe and a gear motor for driving the gear.

7. The marine riser of claim 6 wherein the system for rotating the annular sheath further includes a ring gear supported by a bulkhead surrounding the riser pipe and at least one pinion gear for engaging the ring gear

8. The marine riser of claim 6 wherein the gear motor is located separate from the marine riser.

9. The marine riser of claim 7 wherein the annular sheath includes an inner tube surrounding the riser pipe and an outer tube surrounding the inner tube; wherein a region is formed between the riser pipe and the inner tube, the region containing buoyancy material; and wherein the system for rotating the annular sheath is for rotating the outer tube, the inner tube, and the at least one pair of nozzles relative to the riser pipe.

10. The marine riser of claim 1 wherein the at least one pair of nozzles comprises at least four slot-nozzles disposed around the outer surface of the annular sheath, the at least four slot-nozzles being independently and collectively selectable to discharge water from the conduit out of the outer surface of the annular sheath in response to the direction of the current.

11. The marine riser of claim 1, further comprising a system for rotating the marine riser relative to a platform from which the marine riser is deployed.

12. The marine riser of claim 11 wherein one of the pair of nozzles is located substantially on an opposite side of the annular sheath from the other nozzle; and wherein the system for rotating the marine riser includes a controller for rotating the marine riser in response to the direction of the current.

13. The marine riser of claim 1 wherein the conduit comprises a pair of pipes, each of the pipes coupled to a respective one of the pair of nozzles.

14. The marine riser of claim 1 wherein the conduit comprises at least one duct in fluid communication with at least one of the pair of nozzles.

15. The marine riser of claim 1, further comprising a tail-jet nozzle for discharging water carried by the conduit out of the annular sheath in a direction substantially normal to the outer surface of the annular sheath.

16. The marine riser of claim 15 wherein the annular sheath has an elliptical shape; wherein the pair of nozzles are located approximately 180 degrees from one another measured angularly around the outside surface of the elliptical annular sheath; wherein the pair of nozzles discharge water in a direction substantially parallel to one another and tangential to the outer surface of the annular sheath; and wherein the tail-jet nozzle is located approximately 90 degrees from either of the pair of nozzles and discharges water in a direction substantially normal to the outer surface of the annular sheath and substantially parallel to the direction of water discharge by the pair of nozzles.

17. The marine riser of claim 16 wherein the outer surface of the annular sheath has angular locations of 0 degrees, 180 degrees, and 270 degrees; and wherein one of the pair of slot-nozzles is located within a range of 5 and 350 degrees on the outer surface of the annular sheath, the other of the pair of slot-nozzles is located within a range of 175 and 190 degrees on the outer surface of the annular sheath, and the tail-jet is located within a range of 260 and 280 degrees on the outer surface of the annular sheath.

18. The marine riser of claim 16 wherein the pair of nozzles and the tail-jet are all slot-nozzles extending along a vertical dimension of the annular sheath.

19. The marine riser of claim 15 wherein the tail-jet is controllable to discharge water and not discharge water.

20. The marine riser of claim 1, further comprising a tail-fin extending from the annular sheath in a direction substantially normal to the outer surface of the annular sheath.

21. The marine riser of claim 20 wherein the tail-fin is foldable such that it can be retracted within the outer surface of the annular sheath.

22. The marine riser of claim 20 wherein the annular sheath has an elliptical shape; wherein the pair of nozzles are located approximately 180 degrees from one another measured angularly around the outside surface of the elliptical annular sheath; wherein the pair of nozzles discharge water in a direction substantially parallel to one another and tangential to the outer surface of the annular sheath; and wherein the tail-fin is located approximately 90 degrees from either of the pair of nozzles and extends from the annular sheath in a direction substantially normal to the outer surface of the annular sheath and substantially parallel to the direction of water discharge by the pair of nozzles.

23. The marine riser of claim 22 wherein the outer surface of the annular sheath has angular locations of 0 degrees, 180 degrees, and 270 degrees; and wherein one of the pair of slot-nozzles is located within a range of 5 and 350 degrees on the outer surface of the annular sheath, the other of the pair of slot-nozzles is located within a range of 175 and 190 degrees on the outer surface of the annular sheath, and the tail-fin is located within a range of 260 and 280 degrees on the outer surface of the annular sheath.

24. The marine riser of claim 1, further comprising:

(a) a buoyancy ring disposed between the riser pipe and the annular sheath, the buoyancy ring surrounding the riser pipe and forming a buoyancy cavity between the inside surface of the buoyancy ring and outside surface of the riser pipe; and

(b) buoyancy material disposed within the buoyancy cavity.

25. A marine riser, comprising:

(a) a riser pipe having an outer riser pipe surface;

(b) a telescoping annular sheath surrounding the riser pipe and forming a conduit between the outer riser pipe surface and an inner surface of the telescoping annular sheath, the telescoping annular sheath including:

(1) a first cylindrical section, and

(2) a second cylindrical section that can be substantially inserted in and substantially extended from the first cylindrical section,

(c) at least one pair of nozzles extending through at least one of the first and second cylindrical sections of the telescoping annular sheath for discharging water carried by the conduit out of the telescoping annular sheath in a direction substantially tangential to the outer surface of the telescoping annular sheath; and

(d) when the marine riser is beset by a current, the discharge of water by the at least one pair of nozzles substantially preventing flow separation of the current on a down-current side of the marine riser and thereby substantially preventing hydrodynamic drag and VIV that the marine riser would experience in the absence of the discharge of water by the at least one pair of nozzles.

26. The marine riser of claim 25 wherein the second cylindrical section includes a seal for engaging the riser pipe and for substantially preventing water from escaping the conduit.

27. The marine riser of claim 26 wherein the riser pipe is surrounded at least in part by at least one annular buoyancy ring; and wherein the seal comprises an inflatable toroidal ring that is controllably inflatable and deflatable to engage each buoyancy ring.

28. The marine riser of claim 25, further comprising a pump for pumping water down through the conduit and to the at least one pair of nozzles.

29. The marine riser of claim 25, further comprising a system for rotating at least one of the first and second cylindrical sections and the at least one pair of nozzles relative to the riser pipe.

30. The marine riser of claim 25 wherein the marine riser is rotate-able along the lengthwise axis of the telescoping annular sheath.

31. The marine riser of claim 25 wherein the conduit comprises a cylindrical annular space between the riser pipe and the telescoping annular sheath, a diameter of the cylindrical annular space decreasing from the first cylindrical section to the second cylindrical section.

32. The marine riser of claim 25 wherein the water is dischargeable from the at least one pair of nozzles while the second cylindrical section is being extended from the first cylindrical section and while the second cylindrical section is being inserted into the first cylindrical section.

33. The marine riser of claim 25, further comprising at least one cable extending from an upper terminus of the marine riser to a bottom terminus of the second cylindrical section for reducing loss of discharge water during retraction of the telescoping annular sheath.

34. A marine production riser system, comprising:

(a) a plurality of production riser pipes;

(b) a cylindrical sheath surrounding the plurality of production riser pipes, the cylindrical sheath having an outer surface;

(c) a conduit within the cylindrical sheath;

(d) at least one pair of nozzles for discharging water carried by the conduit out of the cylindrical sheath in a direction substantially tangential to the outer surface of the cylindrical sheath; and

(e) when the marine production riser is beset by a current, the discharge of water by the at least one pair of nozzles substantially preventing flow separation of the current on a down-current side of the marine production riser and thereby substantially preventing hydrodynamic drag and VIV that the marine production riser would experience in the absence of the discharge of water by the at least one pair of nozzles

35. The marine production riser of claim 34, further comprising a system for rotating the cylindrical sheath and the at least one pair of nozzles relative to the plurality of production riser pipes.

36. The marine production riser of claim 34 wherein the at least one pair of nozzles comprises at least four slot-nozzles disposed around the outer surface of the cylindrical sheath, the at least four slot-nozzles being independently and collectively selectable to discharge water from the conduit out of the outer surface of the cylindrical sheath in response to the direction of the current.

37. The marine production riser of claim 34, further comprising a system for rotating the marine production riser relative to a platform from which the marine production riser is deployed.

38. The marine production riser of claim 37 wherein one of the pair of nozzles is located substantially on an opposite side of the annular sheath from the other nozzle; and wherein the system for rotating the marine production riser includes a controller for rotating the marine riser in response to the direction of the current.

39. A marine vessel that may be beset by a current, comprising:

(a) a platform for deployment in a body of water in which currents may be present;

(b) a riser deployable by the platform, including:

(1) a riser pipe for conducting material from the bottom of the body of water to the platform, the riser pipe having an outer surface,

(2) a sheath surrounding the riser pipe and forming a conduit between the outer riser pipe surface and an inner surface of the sheath, the sheath having an outer surface,

(3) at least one pair of slot-nozzles located on opposite sides of the sheath from one another, the pair of slot-nozzles for discharging water carried by the conduit out of the sheath in a direction substantially parallel to one another and substantially tangential to the outer surface of the sheath and at a velocity greater than a velocity of a current that may beset the marine vessel, and

(c) the discharge of water by the at least one pair of nozzles substantially preventing flow separation of the current on a down-current side of the riser and thereby

substantially preventing hydrodynamic drag and VIV that the riser would experience in the absence of the discharge of water by the at least one pair of nozzles.

40. The marine vessel of claim 39, further comprising a system for rotating the riser so that each of the slot-nozzles is discharging water in a direction substantially parallel to the direction of the current.

41. The marine vessel of claim 39, further comprising a system for rotating the sheath relative to the riser pipe so that each of the slot-nozzles is discharging water in a direction substantially parallel to the direction of the current.

42. The marine vessel of claim 39 wherein the at least one pair of slot-nozzles comprises a plurality of pairs of slot-nozzles, the slot-nozzles being independently and collectively selectable to discharge water in response to current direction.

43. The marine vessel of claim 39 wherein the riser further includes a tail-jet nozzle for discharging water carried by the conduit out of the sheath in a direction substantially normal to the outer surface of the sheath.

44. The marine riser of claim 43 wherein the sheath has an elliptical shape; wherein the pair of nozzles are located approximately 180 degrees from one another measured angularly around the outside surface of the elliptical sheath; wherein the pair of nozzles discharge water in a direction substantially parallel to one another and tangential to the outer surface of the elliptical sheath; and wherein the tail-jet nozzle is located approximately 90 degrees from either of the pair of nozzles and discharges water in a direction substantially normal to the outer surface of the elliptical sheath and substantially parallel to the direction of water discharge by the pair of nozzles.

45. The marine riser of claim 44 wherein the outer surface of the elliptical sheath has angular locations of 0 degrees, 180 degrees, and 270 degrees; and wherein one of the pair of slot-nozzles is located within a range of 5 and 350 degrees on the outer surface of the elliptical sheath, the other of the pair of slot-nozzles is located within a range of 175 and 190

degrees on the outer surface of the elliptical sheath, and the tail-jet is located within a range of 260 and 280 degrees on the outer surface of the elliptical sheath.

46. A marine riser, comprising:

(a) a riser pipe;

(b) a substantially cylindrical sheath surrounding the riser pipe, the sheath being designed to be at least partially submerged in water, the sheath enclosing a conduit for holding water and having an outer surface, the outer surface of the sheath having an up-current side and a down-current side such that the up-current side may be beset by a current present in the water in which the marine riser is at least partially submerged, the current having a velocity and a current direction, the sheath having a first separation location where the current tends to separate from the outer surface in the absence of energetic discharges from the outer surface thereby causing hydrodynamic drag and vortex-induced-vibration ("VIV") on the marine riser;

(c) a first nozzle formed in the outer surface, the first nozzle having a first nozzle location within 10 degrees up-current and 5 degrees down current of the first separation location, the first nozzle location being measured angularly along the outer surface relative to the first separation location, the first nozzle for discharging the water contained in the conduit out of the outer surface and into the water in which the marine riser is at least partially submerged at a velocity greater than the current velocity and at an angle substantially tangential to the outer surface at the first nozzle location and substantially in the current direction so as to substantially prevent flow separation of the current on the down-current side of the outer surface and thereby substantially prevent hydrodynamic drag and VIV on the marine riser caused by flow separation at the first separation location;

(d) the substantially cylindrical sheath having a second separation location where the current tends to separate from the outer surface in the absence of energetic discharges from the outer surface thereby causing hydrodynamic drag and VIV on the marine riser, the second separation location being located approximately 180 angularly degrees angularly around the substantially cylindrical sheath from the first location; and

(e) a second nozzle, having a location within 10 degrees up-current and 5 degrees down-current of the second separation location, the location of the second nozzle being

measured angularly along the outer surface relative to the second separation location, the second nozzle for discharging the water contained in the conduit out of the outer surface and into the water in which the marine riser is at least partially submerged at a velocity greater than the current velocity and at an angle substantially tangential to the outer surface at the second nozzle location and substantially in the current direction so as to substantially prevent flow separation of the current on the down-current side of the outer surface and thereby reduce hydrodynamic drag and VIV on the marine riser caused by flow separation at the second separation location.

47. The marine riser of claim 46, further comprising a third nozzle located substantially 90 degrees between the first nozzle and the second nozzle measured angularly along the outer surface, the third nozzle for discharging water contained in the conduit out of the outer surface and into the water in which the marine riser is at least partially submerged in a direction approximately normal to the outer surface and substantially parallel to the current direction.

48. The marine riser of claim 46, further comprising a control system for aligning the first and second nozzles to be within 10 degrees up-current and 5 degrees down-current from the respective first and second separation locations as the current direction changes relative to the marine riser.

49. The marine riser of claim 38 wherein the first and second nozzles are slot-nozzles having a slot opening that is between about 1/32 inch and 1/10 inch.